

ORDER# 4700.1

14RF-08275 EG&G ROCKY FLATS

DIST.	
ARAL, M.E.	
BLINGAME, A.H.	
SBY, W.S.	
ANCH, D.B.	
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VIS, J.G.	
RRERA, D.W.	
AY, R.E.	
IS, J.A.	
OVER, W.S.	
LAN, P.M.	
NNI, B.J.	
ARMAN, L.K.	
EALY, T.J.	
DAHL, T.	
LBIG, J.G.	
JCHINS, N.M.	
CKSON, D.T.	
ELL, R.E.	
JESTER, A.W.	
ARX, G.E.	
CDONALD, M.M.	
CKENNA, F.G.	
ONTROSE, J.K.	
ORGAN, R.V.	
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ZZUTO, V.M.	
SING, T.L.	
ANDLIN, N.B.	
CHWARTZ, J.K.	
ETLOCK, G.H.	
TEWART, D.L.	
TIGER, S.G.	
OBIN, P.M.	
DORHEIS, G.M.	
ILSON, J.M.	
TP GREENS	XX
JH LEDFORD	XX
JB MELLER	XX
KC LONDON	XX
FILE	XX
ORRES. CONTROL	XX
DIAN RECORD/080	XX
RAFFIC	
ATS/T130G	

EG&G ROCKY FLATS, INC.
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August 4, 1994

94-RF-08275

F. R. Lockhart
Environmental Restoration Division
DOE, RFFO

OU 4 DISPUTE: DISPOSITION OF ADDITIONAL TECHNICAL ISSUES - SRK-166-94

Ref: S. W. Slaten ltr (6782) to G. Baughman, Request for Schedule Extension,
June 23, 1994

Action: Provide alternate direction if required

During the dispute initiated by DOE's letter, several additional technical issues were identified for resolution by the principals. EG&G was tasked with documenting the disposition of these issues. Three categories of disposition were identified: resolution of the issue, scheduling of the issue for resolution in the course of the project, and referral of the issue to a more appropriate forum.

This disposition is documented in the attachment, which has been formatted for your convenience as a draft letter from DOE to the regulators. We understand this completes our task to document the issues disposition. If you would like to discuss these issues further, please contact Andy Ledford, extension 8673.

A R Keith

S. R. Keith
Program Manager
Solar Pond Projects

KCL:pjm

Orig. and 1 cc-F. R. Lockhart

CLASSIFICATION:

ONI	
UNCLASSIFIED	
CONFIDENTIAL	
SECRET	

cc:
S. Howard - DOE, RFFO
S. Surovchak - " "
M. A. Witherill - " "

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SIGNATURE
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REVIEW WAIVER PER
CLASSIFICATION OFFICE
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REPLY TO RFP CC NO:

OPTION ITEM STATUS

PARTIAL/OPEN
☐ CLOSED

APPROVALS:

RIC & TYPIST INITIALS

JAC / Jim

DRAFT

DRAFT

DRAFT

94-DOE-xxxxx

Mr. Joe Schieffelin, Unit Leader
Hazardous Waste Control Program
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Dear Mr. Schieffelin:

During our recent meetings to discuss the dispute to modify the scope of Operable Unit 4 Phase I remediation, twelve technical issues were identified. As agreed in these meetings, DOE has captured the disposition of these issues as agreed to by DOE, CDPHE, and EPA staff. The disposition is attached.

If you would like to discuss these issues further, please contact Frazer Lockhart, 966-xxxx.

cc:

H. Ainscough	-	CDPHE
A. Duran	-	EPA
S. Howard	-	SAIC, RFFO
S. Keith	-	EG&G RF
J. Ledford	-	EG&G RF
F. Lockhart	-	ER, RFFO
M. Silverman	-	OOM, RFFO
L. Smith	-	OOM, RFFO
P. Witherill	-	SAIC, RFFO

OU-4 SOLAR EVAPORATION PONDS DISPUTE
ON THE DENIAL OF EXTENSION REQUEST
ASSOCIATED WITH A PROPOSAL TO MODIFY WORK SCOPE
ISSUES DISPOSITION

During the dispute resolution process, the IAG Project Coordinators identified twelve additional technical issues that required disposition. The issues are briefly restated and dispositions are reported below:

1) Evaluation of site conditions and strategies

Disposition: Resolved

The presentation of the design basis and evaluation covered several factors. The DOE would like to maintain flexibility in the design such that materials of various characterizations could be accommodated in the remedy while maintaining protectiveness. These materials would include items, such as the pond sandbags, that will not be quantitatively characterized. Including infiltration abatement in the design provides this flexibility while preserving protectiveness. Furthermore, modeling results on one of the quantitatively characterized materials to be placed under the cap, pond sludge, indicate that infiltration abatement must be included to achieve protectiveness. Thus, two design considerations lead to inclusion of infiltration abatement.

The inclusion of remediation waste, such as sludge, that is also hazardous waste triggers 6 CCR 1007-2 sitting criteria. These criteria include isolation of the contaminants for 1000 years. Since the review of potential health effects indicates the remedy must protect against an upwards uptake pathway, the cap design must provide long-term durability against erosion and the breakdown of any materials used in cap-construction for the 1000 year period.

Ground water protection must also be considered for the 1000 year period of performance. If ground water were to rise into the zone containing contaminants, ground water protection could be impacted: design for ground water protection is also included. During this evaluation, additional work to review ground water control was identified. The specific issue and disposition of that work is documented in issue 12, below.

2) Additional evaluation of cap parameters

Disposition: a. Resolved/b. Scheduled for resolution during design

- a. The design approach was presented. This approach provides a conceptual design to accompany the Decision Document, and a continuing design effort through regulator review of the Title II design to produce the final construction design. The presentation included conceptual design graphics and calculations. The presentation demonstrated the appropriateness of the approach and the adequate potential capacity of the site to achieve the remediation goals.

The capacity of the capped area is not significantly impacted by the proposed scope change, since the additional sludge would represent less than 3% of the total amount of material to be placed beneath the cap.

- b. Stability concerns and designation of the final footprint for the cap will be resolved with completion of the geotechnical investigation and the Title II design.

3) Status of sludge as remediation waste

Disposition: Referred to alternate forum for resolution

The EPA presented their analysis that the sludge fits within the definition of remediation wastes. The analysis included: remediation waste is defined as wastes and media and debris that are managed for the purposes of implementing corrective action requirements; EPA provided further explanation in the preamble "summary of today's rule" to the final EPA rule (FR vol 58, no. 29, pg 8662 and 8663) "the CAMU [Corrective Action Management Unit] has been structured so that any waste managed within the CAMU which was generated as part of the corrective action at that facility (i.e., remediation waste) would not be subject to RCRA regulatory disposal requirements.... remediation waste excludes "new" or as-generated wastes... In addition, remediation wastes must have originated from the facility (including waste managed as a result of section 3004(v) or section 3008(h) corrective action).

DOE concurred with EPA's presentation. The State will transmit its position from a higher level of authority. Preparation and submittal of the Decision Document, including demonstration that the proposed remedy is appropriate, protective, and effective, will proceed under the assumption that sludge is a remediation waste.

4) Inclusion of sludge as enhancement

Disposition: Scheduled for resolution following issue 3 above

Several factors related to including sludge in the OU 4 remedy function as site-enhancements: inclusions of the sludge under the cap has no negative impact on the cap design or performance standards; placement of the sludge under the cap will save approximately \$20 million and allow for acceleration of other phases of the program that provide treatment in disposal costs and up to \$26 million in processing costs, and disposal of non-LDR compliant pond wastes two years ahead of the current schedule; and placement of the sludge under the cap will significantly reduce the inventory of non-LDR compliant, mixed waste in storage at the site. These factors enhance the sites' environmental restoration corrective action, enhance waste management operations at the facility, and resolve a major issue in the FFCA program.

The need for further action on this issue is dependent on the outcome of the State's evaluation of the sludge as remediation waste. Conclusions on the site-enhancement will follow from that resolution.

5) Physical form of the backfill

Disposition: Scheduled for resolution during design

The form parameters are related to constructibility and performance requirements which will be specified during the Title II design. No problems are foreseen.

6) Impacts of DOE Order 5820.2A

Disposition: Resolved

DOE reported that Order 5820.2A and referenced section from 10 CFR 61 do not apply to the OU 4 remediation. CDPHE confirmed the lack of applicability with the site's Low Level Mixed Waste Disposal Site Working Group.

7) Off-site vs. on-site disposal facility

Disposition: Resolved

The availability was summarized for mixed hazardous waste: The Nevada Test Site is unavailable at this time; Envirocare is the only viable off-site disposal facility, though it is not in the same compact as Colorado; no disposal facility exists in Colorado nor in Colorado's compact; no on-site disposal facility exists and creation of such a facility, while possible, would be incompatible with the current OU 4 schedule (see also issue 11 below).

8) Cost-effectiveness of on-site and off-site disposals

Disposition: Resolved

The analysis was performed and the determining cost was identified to be the disposal fees for off-site disposal, based on waste volume and unit costs. On-site disposal was found to be more cost-effective than off-site disposal due to a saving of at least \$20 million in avoided disposal costs and up to \$26 million in processing costs..

9) Risk management associated with issue 8

Disposition: Resolved

The cost analysis confirmed on-site disposal as more cost effective. Off-site disposal risk management will not, therefore, be pursued.

10) Prioritize waste streams

Disposition: Resolved

Waste stream prioritization is no longer required; the current design provides sufficient capacity (see also issue 2 above).

11) Use of IHSS 101 vs. other on-site CAMU

Disposition: Resolved

Designation of some other area at the Rocky Flats Site as a Corrective Action Management Unit (CAMU) is possible, though the availability of the unit is judged to be five to ten years off. If such an approach were pursued, the goal to complete closure of the impoundments as soon as possible would not be met. Near-term efforts would be confined to very limited measures to stabilize the ponds, but remediation would be deferred until the alternate-site CAMU were ready to receive remediation waste.

12) Ground water control with slurry wall

Disposition: Scheduled for resolution in August

Analysis of constructibility and economic factors will be presented August 8, 1994 for review and resolution.